

Delaware Department of Natural Resources and Environmental Control
QUESTIONS AND ANSWERS
NAT19008-MODELLING
Friday, November 22, 2019

Q#	Question	Answer
1-1	A need for deterministic trajectory based output was described, on Page 5, II.B. Project Task 1. In addition, the “shortest time” for oil to reach shoreline was requested. This could be provided as a single value per scenario. However, is DCMP interested in more detailed deterministic output for various worst cases, to supplement the stochastic model’s probabilistic output?	We are interested in as detailed information/output as feasible by the proposed bid. The ‘shortest time’ output is ideally not a single value as it could take into consideration variables such as seasonality or extreme storms (i.e. ‘shortest time in summer’). Ultimately, all oil modelling output (Task 1) should be appropriately detailed to robustly inform the economic analysis (Task 2).
1-2	The model’s capability to simulate spill mitigation management activities (such as surface burning) was noted, on Page 5, II.B. Project Task 1. However, for the stochastic analysis in which the model is run for multiple iterations, the exact placement of spill response activities will vary depending on each iteration’s trajectory – and may be difficult to automate. Is it DCMP’s intention to run the stochastic analysis without any management activities, and reserve the examination of various cleanup effects only for selected deterministic cases?	Yes, we anticipate that any included oil spill scenarios with mitigation activities would be conducted as select deterministic cases, as the bidder’s budget and modelling capacity allows. DNREC-DCMP would expect to work with the selected contractor and other state partners to determine which deterministic cases and management strategies are most appropriate. The stochastic analyses may be run without the consideration of management/mitigation efforts. We do expect that mitigation methods will be included in the economic analysis (Task 2).
1-3	On RFP pages 6 and 7, DNREC requests that the vendor estimate indirect economic effects as well as losses in fees, taxes and/or other revenues to the state and individual towns. This implies use of an input/output modeling approach such as REMI or IMPLAN. In slight contrast, on page 6 DNREC requests that the vendor “predict the economic impacts from recreational and commercial revenue loss.” This could be interpreted as requesting an assessment of spill-related changes in consumer surplus	Ideally, we would expect as comprehensive of an economic analysis as possible. This should include strong consideration for input/output modeling and consumer surplus changes.

	(economists sometimes define changes in consumer surplus as economic impacts). Is DNREC requesting, an input/output modeling effort as well as evaluation of consumer surplus changes, or just an input/output modeling assessment?	
1-4	RFP page 6, DNREC states that in Task 2 the contractor shall consider several factors such as environmental factors (i.e. seasonality, spill volume, and spill location). The RFP goes on to state that “Other considerations will include the direct costs of oil spill clean up and other such environmental impacts.” Does the RFP restrict the effects of these “other such environmental impacts” to be those that generate changes in direct expenditures as would be included in input-output modeling of economic impacts using, for example, IMPLAN? Or are there other effects, such changes in economic welfare as measured by consumer surplus and related measures, that DNREC wishes to include? Can DNREC provide a clarifying example of a “direct cost” that might arise from an “other such environmental impact” of a spill besides clean-up costs? In particular, would expenditures associated with potential Natural Resource Damage claims (e.g. restoration projects implemented with using local contractors, or NRDA assessment costs that generate indirect effects) be included in this category?	We would seek the guidance of the bidder to help define, list, and select the direct and indirect economic effects. We are not restricting any potential economic effects and encourage consideration of all possible economic impacts including those such as economic welfare. We would plan to work with the selected contractor to most appropriately defined direct costs, but anticipate those to include Natural Resource Damage claims or consideration for changes to fisheries revenue due to mortality.
1-5	On page 2, it states “Proposals must be mailed”. Is hand delivery/courier permitted to the address: Kari St. Laurent, PhD c/o DNREC-Coastal Programs 100 W. Water Street, Suite 7B Dover, DE 19904?	You can include Dr. Kari St.Laurent to the mailing address, but it is not required. Submitted bids addressed to the listed address, with the contract number, will arrive to Dr. St.Laurent regardless.
1-6	Please clarify schedule. On Page 4 it states the contract is a twelve months period from January 1, 2020-December	We anticipate the contract to start January 1, 2020, but the exact start time will depend on the date in which the Project

	31, 2020, and then that the Contract will be awarded within 90 days of bid opening.	Sub-Agreement is signed by both parties and a purchase order is executed. Depending on the situation, we could work with the selected contractor to ensure that 1 year of time will be allotted for the proposed work, within reason.
2-1	Page 6, Section II-B: The description of the spill modeling analysis states that the “model should also have the capability to include management activities, such as surface burnings, into the oil spill simulation to investigate the effectiveness of such management activities.” However, the description of the scenarios does not address management activities. Please confirm whether the requested oil spill modeling is expected to include management activities, such as in-situ burning, surface and/or subsurface dispersant application. It is assumed that the initial scenario matrix of surface release modeling and blowout modeling would involve non-mitigated scenarios; however, additional deterministic scenarios could be added to include the use of mitigation.	We are leaving the option of including management strategies, such as surface burnings, to be included in bids. It is not a requirement but is highly desired. We do expect that mitigation methods will be included in the economic analysis (Task 2). The original model runs may be run without the consideration of management/mitigation efforts. We anticipate that any included oil spill scenarios with mitigation activities would be conducted as select deterministic cases, as the bidder’s budget and modelling capacity allows. DNREC-DCMP would expect to work with the selected contractor and other state partners to determine which deterministic cases and management strategies are most appropriate.
2-2	1. Page 6, Section II-B: The second full paragraph on this page states that the analysis will examine spills at three oil spill initialization locations. It goes on to state, “In addition to a surface-based oil spill, at each oil spill initialization location, a subsea well-blowout event will be simulated.” This language suggests three well blow-out simulations (i.e., one for each location). However, the first deliverable listed immediately following this paragraph is identified as “Spatiotemporal model output/data of offshore oil spill scenarios (including 3 locations with 3 different spill	We are seeking 4 scenarios per location (1 subsurface and 3 surface spills at different volumes). There are 3 locations, making the minimum number of expected scenarios 12.

	volumes and 1 subsurface scenario)” [emphasis added]. Would DNREC please clarify if it is seeking 3 subsurface scenarios (1 per location) or just 1 subsurface scenario.	
2-3	Page 8, Section II-D and page 9, Section III-M refer bidders to Excel sheets in Appendix B. Appendix B, however, states “Not applicable or not required.” Would DNREC please confirm that it is not requiring bidders to use a specific pricing template for their pricing proposals.	We are <u>not</u> requiring bidders to use a specific pricing template.
2-4	Page 10, Section III-M: The mailing address for proposals does not include the name of the RFP Designated Contact, Kari St. Laurent. Should bidders include Dr. St. Laurent’s name in the mailing address for their proposal submissions?	You can include Dr. Kari St.Laurent to the mailing address, but it is not required. Submitted bids addressed to the listed address, with the contract number, will arrive to Dr. St.Laurent regardless.